We claim:

1. A method for searching a first table, comprising the steps of:

storing a first value in a computer memory location;

constructing a plurality of subtables by dividing said first table into said plurality of subtables;

searching said plurality of subtables simultaneously to match said first value with a second value, said second value located in one of said plurality of subtables; and

performing an operation on said first value based on the identity of said second value.

2. The method of Claim 1, wherein said operation replaces said first value in said computer memory location with a third value associated with said second value.

3. The method of Claim 1, wherein said operation modifies said first value in said computer memory location.

4. The method of Claim 1, wherein said operation modifies a data set associated with said first value in said computer memory location.

5. The method of Claim 1, wherein said operation removes said first value from said computer memory location.

6. The method of Claim 1, wherein said first value is selected from a group comprising a VPI, a VCI, or a VPI/VCI pair.

7. The method of Claim 1, wherein said second value is selected from a group comprising a VPI, a VCI, or a VPI/VCI pair.

8. The method Of Claim 1, wherein said third value is selected from a group comprising a VPI, a VCI, or a VPI/VCI pair.

9. A method for conveying a data packet from a first node to a second node comprising the steps of:

reading a first VPI and a first VCI from said data packet at said first node;

storing said first VPI and said first VCI in a computer memory location;

simultaneously searching for a second VPI and a second VCI in parallel in a plurality of subtables, one subtable in said plurality of subtables containing said second VPI and said second VCI matching said first VPI and said first VCI;

replacing said first VPI and said first VCI in said data packet with a third VPI and a third VCI, said third VPI and said third VCI associated with said second VPI and said second VCI; and

conveying said data packet to said second node.

10. The method of Claim 9, further comprising the steps of:

storing said first VPI and said first VCI as a first VPI/VCI pair, storing said second VPI and said second VCI as a second VPI/VCI pair, and storing said third VPI and said third VCI as a third VPI/VCI.

11. The method of Claim 9, wherein said plurality of subtables are constructed by dividing a first table, said first table containing said second VPI and said second VCI and said third VPI and said third VCI associated with said second VPI and said second VCI.

12. The method of Claim 11, wherein said first VPI and said first VCI are stored as a first VPI/VCI pair, said second VPI and said second VCI are stored as a second VPI/VCI pair, and said third VPI and said third VCI are stored as a third VPI/VCI pair.

13. The method of Claim 11, wherein the number of said plurality of subtables is determined by dividing a number of entries in said first table by a value representing the time it takes for said data packet to pass through said first node.

14. An ATM network, comprising:

a plurality of customer premise nodes,

a plurality of network nodes;

a plurality of physical links connecting said customer premise nodes to said network nodes; and

at least one data packet transmitted through a plurality of physical links between said plurality of customer premise nodes and said plurality of network nodes, said data packet including a first VPI and a first VCI, said first VPI and said first VCI replaced by a second VPI and a second VCI when said data packet travels through a first network node in said plurality of network nodes, said second VPI and said second VCI determined by searching a plurality of subtables in parallel, with one subtable in said plurality of subtables containing a third VPI and a third VCI associated with said second VPI and said second VCI, said third VPI and said third VCI matching said first VPI and said first VCI.

15. The ATM network of Claim 14, wherein said first VPI and said first VCI are stored as a first VPI/VCI pair, said second VPI and said second VCI are stored as a second VPI/VCI pair, and said third VPI and said third VCI are stored as a third VPI/VCI pair.

16. The ATM network of Claim 14, wherein said plurality of subtables are constructed by dividing up a first table containing a third VPI and a third VCI associated with said second VPI and said second VCI, said third VPI and said third VCI matching said first VPI and said first VCI.

17. The ATM network of Claim 16, wherein said first VPI and said first VCI are stored as a first VPI/VCI pair, said second VPI and said second VCI are stored as a second VPI/VCI pair, and said third VPI and said third VCI are stored as a third VPI/VCI pair.

18. The ATM network of Claim 16, wherein the number of said plurality of subtables is obtained by the number of entries in said first table divided by a value representing the time it takes said data packet to travel through said first network node in said plurality of network nodes.